KISHONO
Serial No. 10/070,802

Atty Dkt: 1275-49
Art Unit: 2637

AMENDMENTS TO THE SPECIFICATION:

Please amend the paragraph beginning at page 1, line 24, and continuing to page 2, line 6, as follows:

To begin with, ~~this~~ the Viterbi algorithm will be described briefly. ~~Here, consider~~with reference to convolutional codes with a coding rate of 1/2 and a constraint length K=3 which are given by generator polynomials,

$G1(D) = 1+D^2$

$G2(D) = 1+D+D^2$

where 'D' indicates the data delay and '+' indicates addition of one bit only.

Please amend the paragraph beginning at page 2, line 7, and continuing to page 2, line 16, as follows:

Fig. 1 is a block diagram showing a configuration of a Viterbi decoder for generating the above convolutional codes. As shown in ~~this figure~~Fig. 1, ~~this~~ the Viterbi decoder is comprised of shift registers, namely registers 101A and 101B, and adders 102A, 102B and 102C for performing modulo-two addition. ~~Here, t~~This decoder has four internal states, each given by (b1, b2), explicitly~~,~~: internal state (0,0), internal state (0,1), internal state (1,0) and internal state (1,1)~~, and o~~. Each internal state can make a transition to two internal states when an input is given.

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Please amend the paragraph beginning at page 5, line 16, and continuing to page 6, line 3, as follows:

Next, operations based on soft-decision processing will be described. In contrast to the hard-decision process which uses binary signals '0' and '1', the soft-decision process performs decisions based on multi-levels signals. In soft-decision using eight levels with three bits as shown in Figs. 4 and 5, assuming only one bit data, when the information bit is '0', if the received level is '0', the branch metric results in '0' and if the received level is '7', the branch metric results in '7'. When the information bit is ~~'0'~~'1', if the received level is '0', the branch metric results in '7' and if the received level is '7', the branch metric results in '0'. It should be noted that the smaller this branch metric value, the more probable the branch is.